ABSTRACT

Polythiophenes of the formula

$$\begin{array}{c|c}
 & S \\
 & X \\$$

wherein R is a side chain; m is the number of substituents; A is a divalent linkage; x, y and z represent, respectively, the numbers of R substituted thienylene, unsubstituted thienylene, and divalent linkages A in the monomer segment with z being either 0 or 1; and n represents the number of the repeating monomer segments in the polymer chain or the degree of polymerization.